

**In the Drawings**

The attached sheets of drawings include new drawings for Fig. 14-19. These sheets replace the original sheets including Fig. 14-19.

Attachments

*Replacement Sheets*

## **REMARKS**

This is a full and timely response to the outstanding final Office Action mailed October 17, 2007. The Examiner is thanked for the thorough examination of the present application. Through this response, claims 1, 4-5, 12, 15-16, 23 and 26-27 have been amended; claims 2-3, 13-14 and 24-25 have been canceled without prejudice, waiver, or disclaimer; and claims 34-39 have been added. Reconsideration and allowance of the application and pending claims are respectfully requested.

### **I. Response to the Drawings Objection**

The drawings have been objected to under 37 C.F.R. 1.83(a) for not being submitted with Applicant's previously submitted remarks. In response to this objection, the drawings have been submitted along with this Response. No new matter has been added. In view of the above-noted submission of the drawings, Applicant respectfully submits that the drawings are acceptable and respectfully request that the objection be withdrawn.

### **II. Response to Claim Rejections Under 35 U.S.C. § 103(a)**

Claims 1-33 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Nichols et al.* (U.S. Pat. No. 6,356,557) (hereinafter "*Nichols*") in view of *Joshi et al.* (U.S. Pat. No. 6,006,017) (hereinafter "*Joshi*"). Applicant respectfully traverses this rejection.

In the present case, the Office Action has not met the requirements of a *prima facie* case for obviousness. Applicant submits that the combination of *Nichols* and *Joshi* is improper. Rather than citing a suggestion or motivation to combine in the references

themselves, the Office Action selectively combined features of *Nichols* and *Joshi* to reject claim 1 and 12 on the solely expressed basis that “it would have been obvious ... in order to incorporate CLAV statuses that could change as taught by Joshi et al. with the method and system as disclosed by Nichols et al. for the purpose of efficiently using available bandwidth.” (See e.g., Office Action, p. 4)

This rationale is both incomplete and improper in view of the established standards for rejections under 35 U.S.C. § 103.

In this regard, the MPEP section 2141 states:

Office policy has consistently been to follow *Graham v. John Deere Co.* in the consideration and determination of obviousness under 35 U.S.C. 103. As quoted above, the four factual inquires enunciated therein as a background for determining obviousness are briefly as follows:

- (A) Determining of the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims in issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

...

#### BASIC CONSIDERATIONS WHICH APPLY TO OBVIOUSNESS REJECTIONS

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention and
- (D) Reasonable expectation of success is the standard with which obviousness is determined.

*Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

The foregoing approach to obviousness determinations was recently confirmed by the United States Supreme Court decision in *KSR INTERNATIONAL CO. V. TELEFLEX INC.* ET AL. 1727 S.Ct. 127 (2007)(No. 04-1350, slip opinion, p. 2), where the Court stated:

In *Graham v. John Deere Co. of Kansas City*, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in *Hotchkiss v. Greenwood*, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15–17. The analysis is objective:

“Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” Id., at 17–18.

In the present case, the Office Action has failed at least (1) to ascertain the differences between and prior art and the claims in issue; and (2) to resolve the level of ordinary skill in the art. Furthermore, the alleged rationale for combining the two references (i.e., to incorporate statuses that could change [...] for the purpose of efficiently using bandwidth) embodies clear and improper subjective hindsight rationale. For at least these additional reasons, Applicant submits that the rejections of all claims are improper and should be withdrawn.

### **Independent Claim 1**

Applicant respectfully submits that independent claim 1 patently defines over the combination of *Nichols* and *Joshi* for at least the reason that the combination of *Nichols* and *Joshi* fails to disclose, teach or suggest certain features in claim 1.

Claim 1, as amended, recites:

1. A method for optimizing cell available (CLAV) status polling of a plurality of physical interface (PHY) addresses, the method comprising the steps of:

polling a plurality of PHY addresses to determine CLAV status;  
receiving the CLAV status for each one of the plurality of PHY addresses;  
determining whether the CLAV status could change for each PHY address, wherein the CLAV status that could change comprises both an inactive CLAV status and a completed cell transfer; and  
re-polling only each of the PHY address with the CLAV status that could change.

(*Emphasis added*). Applicant respectfully submits that the combination of *Nichols* and *Joshi* does not teach the features emphasized above in recited claim 1. The Office Action on p. - 5 alleged that *Nichols*, col. 1, lines 55-67 describe the feature “wherein the CLAV status that could change comprises a completed cell transfer” corresponding to former claim 3.

However, the cited section of *Nichols* actually states:

It then sends the address of the recipient over the address bus 21 in conjunction with an enable signal over line 25. The selected address is clocked by the enable line into the address register 33. The address register 33 is used as a control for the demultiplexer 37 which selects the physical device 19 which is to receive the data. ***The data (including the forty-eight byte payload of a cell) is then sequentially forwarded over the data bus 23 while a next sequentially forwarded over the data bus 23 while a next sequential polling is performed over the address bus.***

(emphasis added). While this section of *Nichols* may disclose transmitting data, it does not disclose “wherein the CLAV status that could change comprises a completed cell transfer.”

There is no status feature disclosed in the text above, much less a status feature that depends upon whether a cell transfer has completed. Thus, the Office Action has failed to demonstrate how *Nichols* discloses “wherein the CLAV status that could change comprises a completed cell transfer.” Applicant respectfully submits that independent claim 1 patently defines over *Nichols* in view of *Joshi* for at least the reason that the

combination fails to disclose, teach or suggest certain features in claim 1.

Additionally, the Office Action alleged on p. 4 that *Joshi*, col. 9, lines 3-16 and 25-38 and Fig. 7 describe “re-polling only each of the PHY address with the CLAV status that could change.” However, *Joshi*, col. 9, lines 3-16 and 25-39 actually state:

FIG. 7 is a flow chart illustrating contention access procedures for a primary station of a preferred embodiment of the present invention. Upon receiving a command to initiate contention access procedures, the polling controller with complete polling procedures for the active secondary station currently being polled, or will be in an idle state if such specific polling is already completed or unnecessary, step 302. The polling controller will then suspend specific polling procedures and commence contention access procedures by transmitting a general poll, abbreviated or referred to as a “GPoll”, on the downstream channel, step 304. The polling controller will then wait for a response from the secondary stations, step 306. Unresponsive secondary stations that receive a GPoll, if able (for example, powered up), will transmit information, such as a response on the upstream channel requesting to become active.

[...]

***Each secondary station*** which responded to the GPoll ***will then wait to receive***, on the downstream channel, ***a SPoll containing its address as an indication from the primary station that its response to the GPoll was received correctly and that they are now active***. Correspondingly, the primary station determines if it has received information from a secondary station, step 308 of FIG. 7, and, if it has received information, the primary station determines if the information was a response requesting transfer to active status, step 310 of FIG. 7. Continuing to refer to FIG. 7, if a valid response such as a transfer request was received following transmission of a GPoll, ***then the polling controller will transmit a SPoll to that secondary station confirming that the response was received correctly and that the secondary station is now active***, step 312.

(emphasis added). Assuming that the Office Action is alleging that the “SPoll” corresponds to “re-polling,” this passage indicates that the SPoll is not a re-poll but rather a **confirmation** that “the response was received correctly and that the secondary station is now active.” Furthermore, the SPoll is not of the PHY address with the CLAV

status that **could change**, but rather the SPoll is a confirmation sent to a second station that it is “now active.” In other words, the change to “active” has already occurred once the SPoll is transmitted. In addition, the cited section does not address “re-polling only each of the PHY address with the CLAV status that could change” when the CLAV status is an inactive CLAV status or when a completed cell transfer has occurred.

Finally, the fact that *Joshi*, Fig. 7 includes a “Repeat General or Specific Polling” item does not describe “re-polling **only** each of the PHY address with the CLAV status that could change.” (emphasis added). Thus, for at least the reason that the SPoll does not disclose “re-polling only each of the PHY address with the CLAV status that could change,” *Joshi* does not disclose certain features of claim 1.

Even assuming that the Office Action is alleging that the “GPoll” corresponds to re-polling after the “repeat” step of Fig. 7, *Joshi* still fails to disclose “re-polling **only** each of the PHY address with the CLAV status that could change” because *Joshi* does not specify that the GPoll occur **only** for inactive secondary stations or for stations where a completed cell transfer has occurred. (emphasis added). In other words, the GPoll is just a general poll that is not tailored to certain stations upon repetition. Thus, for at least the reason that the GPoll does not disclose “re-polling only each of the PHY address with the CLAV status that could change,” *Joshi* does not disclose certain features of claim 1.

Moreover, the addition of Nichols fails to cure the deficiencies of Joshi with respect to the “re-polling only each of the PHY address with the CLAV status that could change” feature. The Office Action appears to cite Nichols, col. 5, lines 7-13 as

disclosing “re-polling each PHY address with a CLAV status.” Nichols, col. 5, lines 7-13 provide:

After the appropriate physical devices has been enabled, data (represented in FIG. 4a by words W1, W2, W3, ... ) may be sent tot he ATM layer device 55 via register 72 and buffer 80 to the enabled physical device. While the data is being sent, the ATM layer device 55 starts the address polling process again, and ***the entire polling, response, selection, enabling, and data sending sequence is repeated.***

(emphasis added). Thus, while this section may teach repeating an address polling process, the section still fails to teach “re-polling only each of the PHY address with the CLAV status that could change” because it teaches repeating the entire polling process instead of polling only certain PHY addresses. Thus, *Nichols* fails to cure the deficiencies of *Joshi* discussed above.

Accordingly, the Office Action has failed to establish that the combination of *Nichols* and *Joshi* discloses, teaches or suggests certain features in claim 1. Therefore, Applicant respectfully requests that the rejection of claim 1 be withdrawn.

#### **Dependent Claims 4-11 and 34-35**

Applicant submits that dependent claims 4-11 and 34-35 are allowable for at least the reason that these claims depend from an allowable independent claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claims 4-11 and 34-35 be withdrawn.

#### **Independent Claim 12**

The Office Action rejected claim 12 under 35 U.S.C. §103 as allegedly unpatentable over the combination of *Nichols* in view of *Joshi*. Applicant respectfully

requests reconsideration and withdrawal of this rejection. In this regard, independent claim 12 recites:

12. A system for optimizing cell available (CLAV) status polling of a plurality of physical interface (PHY) addresses, the system comprising:
  - a polling module for polling a plurality of PHY addresses to determine CLAV status;
  - a status module for receiving the CLAV status for each one of the plurality of PHY addresses;
  - a determining module for determining whether the CLAV status could change for each PHY address, wherein the CLAV status that could change comprises both an inactive CLAV status and a completed cell transfer; and
  - a re-polling module for re-polling only each of the PHY address with the CLAV status that could change.**

*(Emphasis added).* Claim 12 patently defines over the cited art for at least the reason that the cited art fails to disclose the features emphasized above.

In short, *Nichols* and *Joshi* are applied in the same manner to claim 12 as they were applied to claim 1, with respect to “re-polling only each of the PHY address with the CLAV status that could change.” Applicant respectfully traverses this application of *Nichols* and *Joshi* for the same reasons discussed above in connection with claim 1. For at least this reason, the rejection of claim 12 should be withdrawn.

#### **Dependent Claims 15-22 and 36-37**

Applicant submits that dependent claims 15-22 and 36-37 are allowable for at least the reason that these claims depend from an allowable independent claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claims 15-22 and 36-37 be withdrawn.

### **Independent Claim 23**

The Office Action rejected claim 23 under 35 U.S.C. §103 as allegedly unpatentable over the combination of *Nichols* in view of *Joshi*. In the present case, the Office Action has not met the requirements of a *prima facie* case for obviousness. Applicant submits that the combination of *Nichols* and *Joshi* is improper. Rather than citing a suggestion or motivation to combine in the references themselves, the Office Action selectively combined features of *Nichols* and *Joshi* to reject claim 23 on the solely expressed basis that “it would have been obvious ... in order to incorporate CLAV statuses that could change and a computer readable medium as taught by Joshi et al. with the method and system as disclosed by Nichols et al. for the purpose of efficiently using available bandwidth.” (See e.g., Office Action, p. 4)

This rationale is both incomplete and improper in view of the established standards for rejections under 35 U.S.C. § 103.

In this regard, the MPEP section 2141 states:

Office policy has consistently been to follow *Graham v. John Deere Co.* in the consideration and determination of obviousness under 35 U.S.C. 103. As quoted above, the four factual inquires enunciated therein as a background for determining obviousness are briefly as follows:

- (A) Determining of the scope and contents of the prior art;
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...

#### BASIC CONSIDERATIONS WHICH APPLY TO OBVIOUSNESS REJECTIONS

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention and
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The foregoing approach to obviousness determinations was recently confirmed by the United States Supreme Court decision in *KSR INTERNATIONAL CO. V. TELEFLEX INC. ET AL.* 127 S.Ct. 1727 (2007)(No. 04-1350, slip opinion, p. 2), where the Court stated:

In *Graham v. John Deere Co. of Kansas City*, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in *Hotchkiss v. Greenwood*, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15–17. The analysis is objective:

“Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” Id., at 17–18.

In the present case, the Office Action has failed at least (1) to ascertain the differences between and prior art and the claims in issue; and (2) to resolve the level of ordinary skill in the art. Furthermore, the alleged rationale for combining the two references (i.e., to incorporate statuses that could change [...] for the purpose of efficiently using bandwidth) embodies clear and improper subjective hindsight rationale.

For at least these additional reasons, Applicant submits that the rejections of all claims are improper and should be withdrawn.

Applicant respectfully submits that independent claim 23 patently defines over the combination for at least the reason that the combination of *Nichols* and *Joshi* fails to disclose, teach or suggest certain features in claim 23. Claim 23, as amended, recites:

23. A computer readable medium, the computer readable medium comprising a set of instructions for optimizing cell available (CLAV) status polling of a plurality of physical interface (PHY) addresses and being adapted to manipulate a processor to:

poll a plurality of PHY addresses to determine CLAV status;  
receive the CLAV status for each one of the plurality of PHY addresses;

determine whether the CLAV status could change for each PHY address, wherein the CLAV status that could change comprises an inactive CLAV status, and wherein the CLAV status that could change further comprises a completed cell transfer; and

re-poll only each of the PHY address with the CLAV status that could change.

(*Emphasis added*). Claim 12 patently defines over the cited art for at least the reason that the cited art fails to disclose the features emphasized above.

In short, *Nichols* and *Joshi* are applied in the same manner to claim 23 as they were applied to claim 1, with respect to “re-polling only each of the PHY address with the CLAV status that could change.” Applicant respectfully traverses this application of *Nichols* and *Joshi* for the same reasons discussed above in connection with claim 1. For at least this reason, the rejection of claim 23 should be withdrawn.

#### **Dependent Claims 26-33 and 38-39**

Applicant submits that dependent claims 26-33 and 38-39 are allowable for at least the reason that these claims depend from an allowable independent claim. See, e.g., *In re*

*Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claims 26-33 and 38-39 be withdrawn.

### **III. Canceled Claims**

As identified above, claims 2-3, 13-14 and 24-25 have been canceled from the application through this Response without prejudice, waiver, or disclaimer. Applicant reserves the right to present these canceled claims, or variants thereof, in continuing applications to be filed subsequently.

### **IV. New Claims**

As identified above, claims 34-39 have been added into the application through this Response. Applicant respectfully submits that these new claims describe an invention novel and nonobvious in view of the prior art of record and, therefore, respectfully request that these claims be held to be allowable.

### **CONCLUSION**

Applicant respectfully submits that all pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 50-0835.

Respectfully submitted,

/Daniel R. McClure/

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